AT-MX25F & AT-MX26F, Fiber Micro Transceivers

AT-MX25F, Fiber micro transceiver with SMA connector
AT-MX26F, Fiber micro transceiver with ST connector

KEY FEATURES

IEEE 802.3 10FL/FOIRL compliant, Ethernet Version 1.0 and 2.0 compatible and FL/FOIRL support

Direct AUI connection

Sophisticated link monitor function and LED

Wide optic input dynamic range

Loopback function emulates AUI (10Base5) transceiver

Jabber timer and LED

Switch selectable Signal Quality Error (SQE)/ Heartbeat test

Receive, Transmit and Collision LEDs

5 year warranty

These micro transceivers are the latest in Ethernet fiber-optic Local Area Network (LAN) micro transceivers. These micro transceivers are plug compatible with most IEEE 802.3 hardware and implement all Ethernet transmit, receive and collision detection functions. Electrical connections and power are supplied via the Attachment Unit Interface (AUI) 15-pin D subconnector, and the interface is mechanically and electrically identical to coaxial cable transceivers. Compact size allows these transceivers to connect directly to most Data Terminal Equipment (DTE) or hubs, bringing fiberoptic cabling directly to the desktop and, in most cases, eliminating the need for an AUI cable.

These micro transceivers allow the utilization of fiber optic media and are completely transparent to the user hardware and software. These micro transceivers can be combined with existing copper-based Ethernet configurations to allow coax-to-fiber and fiber-to-fiber local and remote network connections.

These fiberoptic micro transceivers contain a number of technical innovations, including an automatic receive light level adjustment. This allows any length between 0–2000 meters of fiberoptic cable to be attached without the use of optical attenuations. In addition, the transceivers monitor and report the low light level condition according to IEEE 802.3 10FL/FOIRL Media Attachment Unit (MAU) specifications. With this feature, these transceivers do not require any gain or energy adjustments for installation.

Other enhancements include an auto-reset jabber feature which indicates a controller malfunction. If invoked, this function causes an automatic shutoff of the unit to avoid overloading the network. These Micro Transceivers also employ Surface Mount Technology (SMT) to provide a highly reliable, yet inexpensive fiberoptic micro transceiver.

These micro transceivers are equipped with five diagnostic LEDs so status may be determined at a glance.

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STATUS INDICATORS

Transmit	Indicates packet is being transmitted to the media
Receive	Indicates packet is being received from the media
Collision	Indicates a collision is detected
Jabber	Indicates that the jabber timer has expired
Link Monitor	Indicates a valid receive link exists

AUI INTERFACE

Transmitter:	Typical	Range
Squelch Voltage	-170mv	-140 to -190mv
SQE Test Delay	800ns	600 to 1600ns
Duration	1000ns	500 to 1500ns
Collision Assert Delay	200ns	450ns
Jabber Setup	70ms	20 to 150ms
Recovery	450ms	250 to 750ms
Loopback Start-Up Delay		500µs
Receiver:		
Start-Up Delay	350ns	
Steady State Delay	15ns	50ns
Signal Amplitude	±800mv	±550 to ±1200mv

FIBEROPTIC INTERFACE

Optical:	Typical	Range
Wavelength ±20 nm	850nm	
Sensitivity	-32.5dBm	
Saturation	170µW (-7.6dBm)	150µW (-8.2dBm)
Transmitter:		
Output Power		
62.5/125µM	-12.0dBm	-15.0dBm
100/140µM	-6.5dBm	-9.5dBm
50/125µM	-16.5dBm	-19.5dBm

FIBEROPTIC CONNECTORS

AT-MX25F	SMA connector
AT-MX26F	ST connector

POWER CHARACTERISTICS

Supply:	Typical	Range
Voltage	12v	11.4 to 12.6v
Current	400mA	500mA

ENVIRONMENTAL SPECIFICATIONS

Operating Temp.	0°C to 50° C
Storage Temp.	-20°C to 60° C
Relative Humidity	5% to 80% noncondensing

PHYSICAL CHARACTERISTICS

Dimensions	6.9cm x 4.3cm x 2.5cm (2.7" x 1.7" x 1.0")
Weight	85g (2.9oz)

ELECTRICAL/MECHANICAL APPROVALS

EMI	FCC, TUV, Vfg-B
Safety	UL, CSA, TUV-GS, IEC 825-1

ORDERING INFORMATION

AT-MX26F-05
Fiberoptic micro transceiver with SMA connector

AT-MX26F-05
Fiberoptic micro transceiver with ST connector

Accessories

AT-ADAPT-1
For mechanical fit with some models of Sun Microsystems SPARCstation™ and Apple Macintosh II models via an AUI extender adapter (AT-ADAPT-1). Consult your Allied Telesyn sales representative for more details.

Product Range: Allied Telesyn's long-term focus on price/performance networking has made it a market-leading provider of LAN, WAN and MAN network systems. Advanced Layer 3 switch and router technology perfectly complements its traditional Layer 2 switch, hub, adapter card and media conversion capabilities.

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